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PATENT ABSTRACTS OF JAPAN

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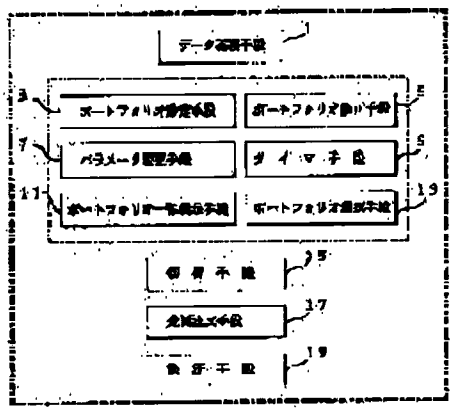
(54) FUNDS OPERATION MANAGEMENT DEVICE

(57)Abstract:
PURPOSE: To realize quick sale/punchase ordering and settlement and to prevent the occurrence of erroneous sale/purchase due to erroneous input by providing a funds operation management device with a portfolio consideration means and a sale/purchase ordering and setting means.
CONSTITUTION: The latest market price data transmitted from a data base presenting enterprise is stored in a data storage means 1, and an optimum portfolio is calculated based on the stored data by a portfolio consideration means 3; and when a profit larger than a desig nated profit is obtained, an operator is informed of it. A sale/purchase ordering means 17 executes sale/ purchase ordering to financial facilities based on the consideration result of the portfolio search means 3; and when sale/purchase and accepted, the price is paid for by a settlement means 19. That is, since ordering of sale/purchase of commodities and the consideration can be performed based on the portfolio searched by the portfolio consideration means 3, ordering of sale/purchase is quickly executed, and it is unnecessary for the operator to input ordering data.



* NOTICES *

3.In the drawings, any words are not translated.

CLAIMS

[Claim(s)]
[Claim 1]An investment management controlling device comprising:
A data accumulation means to store data required for investment management management.
A portfolio decision means to perform portfolio decision calculation based on data stored in this data accumulation means, and to decide upon a portfolio.
Buy and sell orders and a payment system which performs buy and sell orders of goods, and settlement of accounts based on a decision result of this portfolio decision means

[Claim 2]The investment management controlling device according to claim 1 provided with a portfolio correcting means which reads a portfolio upon which it already decided, performs portfolio correction simulation calculation based on data stored in a data accumulation means, and corrects a portfolio.
[Claim 3]The investment management controlling device according to claim 1 or 2 provided with a parameter change means which changes a parameter of a formula one by one and repeats portfolio decision calculation or portfolio correction simulation calculation until it fulfills conditions given beforehand.
[Claim 4]The investment management controlling device comprising according to claim 1, 2, or 3:
A timer means which stops portfolio decision when a fixed time limit is provided in portfolio decision and this time limit is exceeded.
A portfolio list display means which displays a list of two or more portfolios upon which it was decided when decided upon two or more portfolios which fulfill conditions beforehand given into said time limit.
A portfolio selection means to choose 1 or two or more portfolios from portfolios displayed by this portfolio list display means.

[Translation done.]

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Industrial Application]This invention relates to the investment management managerial system which an individual or a legal entity uses for investment management.
[0002]
[Description of the Prior Art]Drawing 9 is a network composition figure of the conventional investment management managerial system. 200 is an investment management controlling device of an individual or a legal entity user, and the investment management controlling device 200 is connected to the host computers 202, such as a database offer company, via the line network 201. 203 is the buy and sell orders and settlement equipment of an individual or a legal entity user, and buy and sell orders and the settlement equipment 203 are connected to the host computers 205, such as a financial institution, via the line network 201.
[0003]The conventional investment management managerial system is constituted as mentioned above, and offer of data is received from a database offer company, with the investment management controlling device 200, decide upon or correct a portfolio and an operator inputs into buy and sell orders and the settlement equipment 203 based on decision or a correcting result -- buy and sell orders were performed to the financial institution.
[0004]
[Problem(s) to be Solved by the Invention]However, since the investment management controlling device 200, and buy and sell orders and settlement equipment 203 are isolated systems in the conventional investment management managerial system, Time is taken to input into buy and sell orders and the settlement equipment 203 based on portfolio decision or a correcting result, In spite of having received offer of real time data from the database offer company, by the time accounts is settled, a time lag will arise, and a loss sometimes actually occurs [buy and sell orders and]. Decision of a portfolio or the data of correction is seen, human being requires time and effort, in order to settle accounts, buy and sell orders and, and also the input mistake may have arisen. Since a change of each parameter in portfolio decision and correction was made for operator itself, there was also a problem that portfolio decision and correction took time.
[0005]It is made in order that this invention may solve this problem, and it aims at enabling quick buy and sell orders and settlement of accounts based on the market price data provided from the database offer company, and obtaining the investment management controlling device which the dealing error by an input mistake does not generate.
[0006]
[Means for Solving the Problem]A data accumulation means to store data which an investment management controlling device concerning this invention needs for investment management management, It has a portfolio decision means to perform portfolio decision calculation based on data stored in this data accumulation means, and to decide upon a portfolio, and buy and sell orders and a payment

system which perform buy and sell orders of goods, and settlement of accounts based on a decision result of this portfolio decision means.
[0007]A portfolio upon which it already decided is read, portfolio correction simulation calculation is performed based on data stored in a data accumulation means, and it has a portfolio correcting means which corrects a portfolio.
[0008]It has a parameter change means which changes a parameter of a formula one by one and repeats portfolio decision calculation or portfolio correction simulation calculation until it fulfills conditions given beforehand.
[0009]A timer means which stops portfolio decision when a fixed time limit is provided in portfolio decision and this time limit is exceeded, A portfolio list display means which displays a list of two or more portfolios upon which it was decided when decided upon two or more portfolios which fulfill conditions beforehand given into said time limit, It has a portfolio selection means to choose 1 or two or more portfolios from portfolios displayed by this portfolio list display means.
[0010]
[Function]A data accumulation means stores data required for investment management management. A portfolio decision means performs portfolio decision calculation based on the data stored in the accumulation means, and decides upon a portfolio. Buy and sell orders and a payment system perform the buy and sell orders of goods, and settlement of accounts based on the decision result of a portfolio decision means.
[0011]A portfolio correcting means reads the portfolio upon which it was already decided, performs portfolio correction simulation calculation based on the data stored in the data accumulation means, and corrects a portfolio.
[0012]A parameter change means changes the parameter of a formula one by one, and repeats portfolio decision calculation or portfolio correction simulation calculation until it fulfills the conditions given beforehand.
[0013]A timer means provides a fixed time limit in portfolio decision, and when this time limit is exceeded, it stops portfolio decision. A portfolio list display means displays the list of two or more portfolios upon which it was decided, when decided upon two or more portfolios which fulfill the conditions beforehand given into the time limit. A portfolio selection means chooses 1 or two or more portfolios from the portfolios displayed by the portfolio list display means.
[0014]
[Example]The block diagram and drawing 2 which drawing 1 shows the composition of the investment management controlling device of one example of this invention are a hardware-constitutions figure of the investment management controlling device 20 of this example. A data accumulation means by which 1 accumulates the newest market price data and the decided portfolio information which are transmitted to ****** or real time from a database offer company in drawing 1, 3 is a portfolio decision means, and based on the latest data accumulated in the data accumulation means 1, the portfolio decision means 3 calculated the optimal portfolio, and if the profits of the more than specified under the fixed risk are obtained, it is provided with the function to tell an operator. The decided portfolio information which 5 is a portfolio correcting means and registered the portfolio correcting means 5 into the data accumulation means 1, When portfolio correction

simulation computation is performed based on the newest market price data, portfolio correction is made from future market price prediction and fee calculation, and the profits of the specified more than are obtained, it has the function to tell about to an operator.

[0015]7 is a parameter change means and changes the parameter change means 7 one by one in accordance with the rule which was able to determine the predetermined parameter beforehand on the occasion of portfolio decision or correction calculation. 9 is a timer means which stops portfolio decision or correction, when a fixed time limit is provided in portfolio decision or correction and this time limit is exceeded. 11 is a portfolio list display means which displays the list of two or more portfolios upon which it was decided when decided upon two or more portfolios. 13 is a portfolio selection means which enables selection of 1 or two or more portfolios out of two or more portfolios displayed by the portfolio list display means 11.

[0016]15 is the portfolio decision means 3 or the portfolio correcting means 5, and a switching means changed to a buy-and-sell-orders means to mention later. 17 is a buy-and-sell-orders means, and the buy-and-sell-orders means 17 performs buy and sell orders to a financial institution based on the decision result of the portfolio decision means 3, or the correcting result of the portfolio correcting means 5. 19 is a payment system which settles a price, after dealing is made.

[0017]A processor to which 21 performs data processing in drawing 2, a display in which 23 consists of CRT etc., The memory storage with which the program and data which the keyboard into which, as for 25, an operator inputs data etc., the disk unit in which 27 stores data etc., and 29 perform are memorized, and 31 are the communications departments which perform communication with the host computer of a database offer company and a financial institution. The data accumulation means 1 is realized by the processor 21, the communications department 31, and the disk unit 27, The portfolio decision means 3, the portfolio correcting means 5, the buy-and-sell-orders means 17, and the payment system 19 are realized when the processor 21 carries out instruction execution of the program stored in the memory storage 29.

[0018]Drawing 3 is a network composition figure of the investment management managerial system using the investment management controlling device of this invention, Both different points from drawing 7 in which the network composition of the conventional example was shown are points that the host computers 202, such as a database offer company, and the host computers 205, such as a financial institution, are connected to the one investment management controlling device 20. Drawing 4 is a flow chart of processing of the investment management controlling device 20 concerning this invention. The flow of processing is outlined based on drawing 1 - drawing 4.

[0019]The investment management controlling device 20 is working for 24 hours, and the data accumulation means 1 stores the newest market price data etc. which are transmitted to ****** or real time from the host computer 202 of a database offer company in the disk unit 27 (S1). If there are screen-display directions with an operator, the selection picture of portfolio decision or portfolio correction will be displayed on the display 23 (S3). When an operator chooses

portfolio decision, (S5) and a portfolio decision routine are performed (S7). When an operator chooses portfolio correction in judgment of S5, a portfolio correction routine is performed (S9). The contents of portfolio decision or the portfolio correction routine are mentioned later.

[0020]As a result of performing portfolio decision or a portfolio correction routine, when the profits of the specified more than are obtained, the list of the portfolios which are executed results is displayed on the display 23, and waits for selection of an operator (S11). If oneself chooses the portfolio judged to be best from the portfolios as which the operator was displayed, the switching means 15 will change the mode to the mode of dealing directions (S13). If there are directions of dealing execution of an operator (S15), when the buy-and-sell-orders means 17 transmits order data (the kind of goods, quantity) to a financial institution etc., buy and sell orders will be performed (S17). If data is transmitted to a financial institution etc. and dealing is made, the payment system 19 will perform settlement processing (S19). After settlement of accounts is completed, the data accumulation means 1 stores in a predetermined field the portfolio decided upon or corrected (S21), and processing is completed.

[0021]Drawing 5 is a flow chart of a portfolio decision routine. Processing of a portfolio decision routine is explained based on drawing 5. If portfolio decision is chosen in the processing process shown in drawing 4 (S5 in drawing 4), the condition input screen 1 will be displayed on the display 23 (S51). An example of a display of the condition input screen 1 is shown in drawing 6. If the conditions shown in the condition input screen 1 are inputted by an operator (S53), the portfolio decision means 3 will extract a brand applicable by a covariance-analysis method etc. based on the inputted conditions (S55). The portfolio decision means 3 displays the brand on the display 23, when it judges whether the applicable brand was extracted as for more than the number of specification (S57) and more than the number of specification is extracted (S59).

[0022]When there is no brand applicable in judgment of S57 in more than the number of specification, It judges whether the timer means 9 is within a time [which was specified beforehand] (S61), and in being within a time, the parameter change means 7 changes parameters (alpha value of the condition input screen 1, a beta value, etc.) by the method which was able to be decided beforehand (S63). And based on the changed parameter, the portfolio decision means 3 extracts a brand again (S55). When a time limit is exceeded in judgment of S61, it returns to the process of reception of market price data (S1 in drawing 4). The thing reflecting the market price of the present [extraction / based on the market price data in which this went through fixed time since market price data was changing every moment in connection with the passage of time / of a brand] is because it does not become. every [which specified change of the parameter beforehand for every parameter on the basis of the value inputted by S53 / constant value] -- it is made to change one by one

[0023]The brand which fulfills the conditions of the condition input screen 1 is displayed (S59), and if the brand included in a portfolio is chosen from the brands by which the operator was expressed (S65), the condition input screen 2 will be displayed on the display 23 (S67). An example of a display of the condition input

screen 2 is shown in drawing 7. If the conditions shown in the condition input screen 2 are inputted by an operator (S69), based on the inputted conditions, the portfolio decision means 3 will perform optimizing calculation with quadratic programming etc. (S71). After optimizing calculation is completed, when it judges whether the portfolio decision means 3 has the combination of the brand beyond terms desired (S73) and there is combination, the portfolio list display means 11 displays the brand combination group on the display 23 (S75).

[0024]When there is no combination of the brand beyond terms desired in judgment of S73, It judges whether the timer means 9 is within a time [which was specified beforehand] (S77), and in being within a time, the parameter change means 7 changes parameters (the returned value of choice of the condition input screen 2, the risk value of choice, etc.) by the method which was able to be decided beforehand (S79). and -- being based on the changed parameter -- the portfolio decision means 3 -- optimizing calculation is performed again (S71). When a time limit is exceeded in judgment of S77, it returns to the process of reception of market price data (S1 in drawing 4). This is based on the same reason as above-mentioned applicable brand extraction explained by the way. every [which specified change of the parameter beforehand for every parameter on the basis of the value inputted by S67 / constant value] -- it is made to change one by one If a brand combination group is displayed on the display 23 by the above processing (S75), processing will progress to the process of S11 shown in above-mentioned drawing 4.

[0025]Drawing 8 is a flow chart of a portfolio correction routine. Processing of a portfolio correction routine is explained based on drawing 8. If portfolio correction is chosen in the processing process shown in drawing 4 (S5 in drawing 4), The table of the decided portfolio registered is displayed on the display 23 (S101), If the portfolio which is the target of correction with an operator is chosen (S103), based on the present market price data, profits etc. will be computed about the selected portfolio, and the result will be displayed on the display 23 (S105).

[0026]If the profits based on the present market price data, etc. are displayed, when it judges whether the operator needs to correct a portfolio and it is judged that there is the necessity for correction, correction will be required from a keyboard. If there is a request modify (S107), a correcting condition input screen will be displayed (109) and it will wait for the condition input from an operator (S111). The above processing is performed by the portfolio correcting means 5. The fundamentally same portfolio correction simulation calculation as processing (S51-S75 in drawing 5) of the portfolio decision shown in drawing 5 is performed henceforth (S113), If the new brand combination group which satisfies a designated condition is displayed on the display 23 (S115), processing will progress to the process of S11 shown in above-mentioned drawing 4.

[0027]In the above-mentioned example, as a result of portfolio decision or correction, when the combination of the brand beyond terms desired was organized, the example which tells an operator, waits for directions of an operator and performs dealing was shown, but. For example, when the given conditions are fulfilled, it may be made to perform dealing directions and settlement of accounts automatically, without telling an operator.

[0028]
[Effect of the Invention]As explained above, according to this invention, a portfolio decision means, and buy and sell orders and a payment system are provided in one investment management controlling device, Since it was made to perform the buy and sell orders of goods, and settlement of accounts based on the portfolio upon which the portfolio decision means decided, execution of the buy and sell orders after portfolio decision can be performed promptly, and a risk of receiving the fluctuation of rates by time progress can be reduced. Since an operator does not need to input order data at the time of the buy and sell orders of goods, an input mistake does not arise.
[0029]Since the portfolio correcting means was established, it can be judged whether a decided portfolio fulfills certain conditions to the present market price.
[0030]Since it has both the functions of a portfolio decision means and a portfolio correcting means, always optimal investment management can be performed.
[0031]Since a parameter change means is formed, a parameter is changed one by one and it was made to repeat portfolio decision calculation or portfolio correction simulation calculation, portfolio decision or correction can be made promptly.

[Translation done.]

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1]It is a block diagram showing the composition of the investment management controlling device of one example of this invention.
[Drawing 2]It is a hardware-constitutions figure of the investment management controlling device 20 of 1 this example of this invention.
[Drawing 3]It is a network composition figure of the investment management managerial system using the investment management controlling device of this invention.
[Drawing 4]It is a flow chart of processing of the investment management controlling device concerning this invention.
[Drawing 5]It is a flow chart of a portfolio decision routine.
[Drawing 6]It is a figure showing an example of a display of the condition input screen 1 of the investment management controlling device concerning this

invention.
[Drawing 7]It is a figure showing an example of a display of the condition input screen 2 of the investment management controlling device concerning this invention.
[Drawing 8]It is a flow chart of a portfolio correction routine.
[Drawing 9]It is a network composition figure of the conventional investment management managerial system.
[Description of Notations]
1 Data accumulation means
3 Portfolio decision means
5 Portfolio correcting means
7 Parameter change means
9 Timer means
11 Portfolio list display means
13 Portfolio selection means
15 Switching means
17 Buy-and-sell-orders means
19 Payment system

[Translation done.]

* NOTICES *

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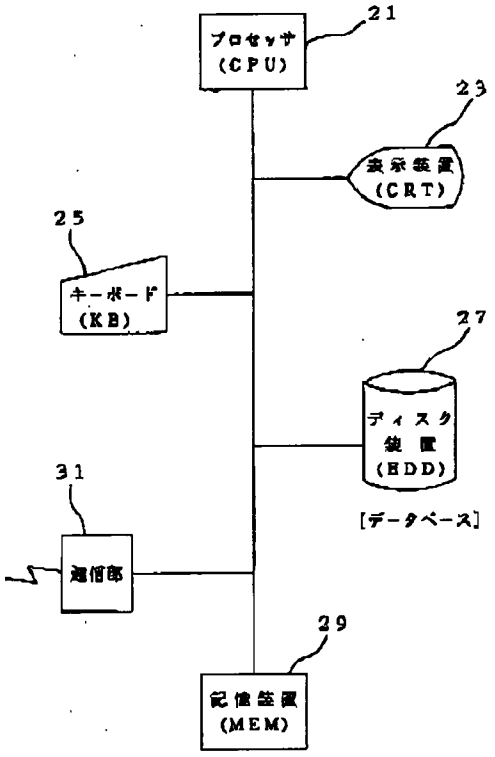
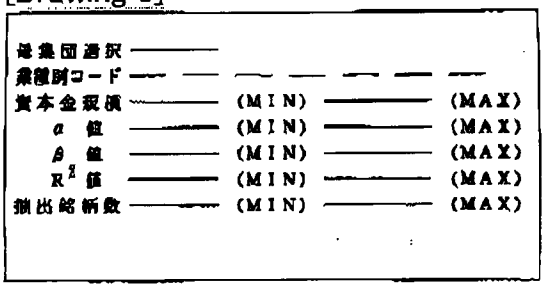
DRAWINGS

[Drawing 2]



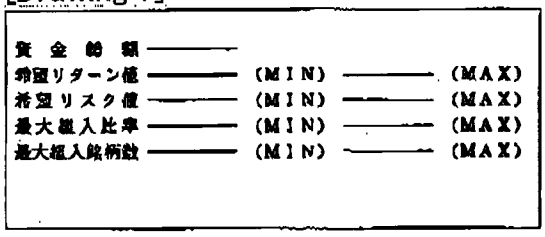
資金運用管理装置２０のハードウェア構成図

[Drawing 6]



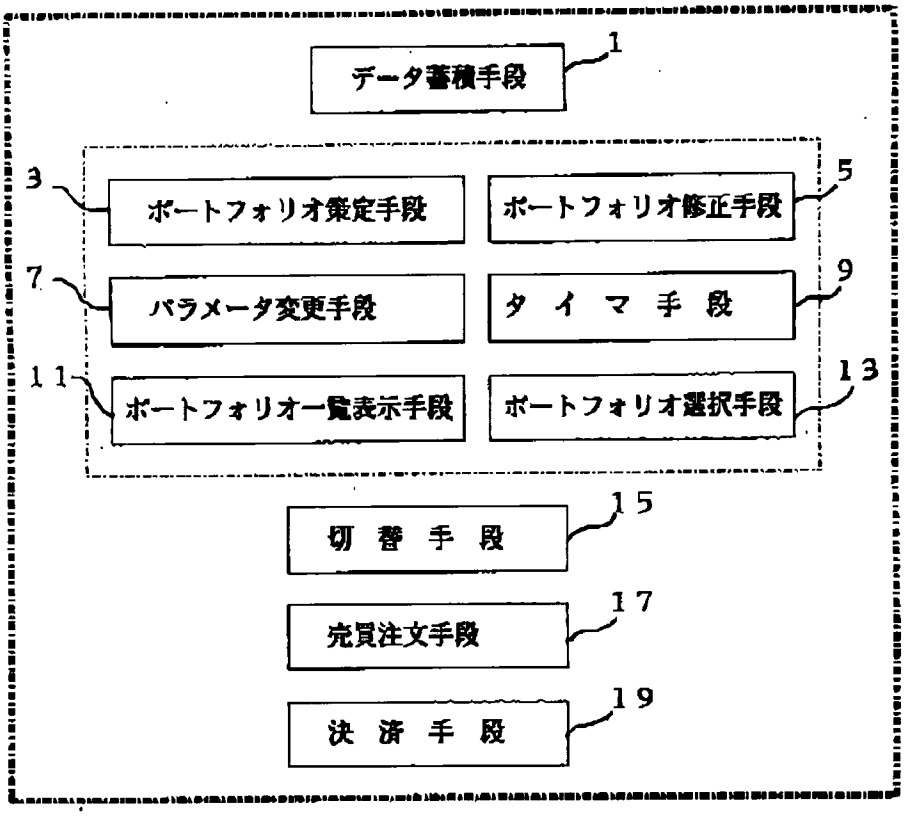
希望条件入力画面１ [銘柄抽出]

[Drawing 7]



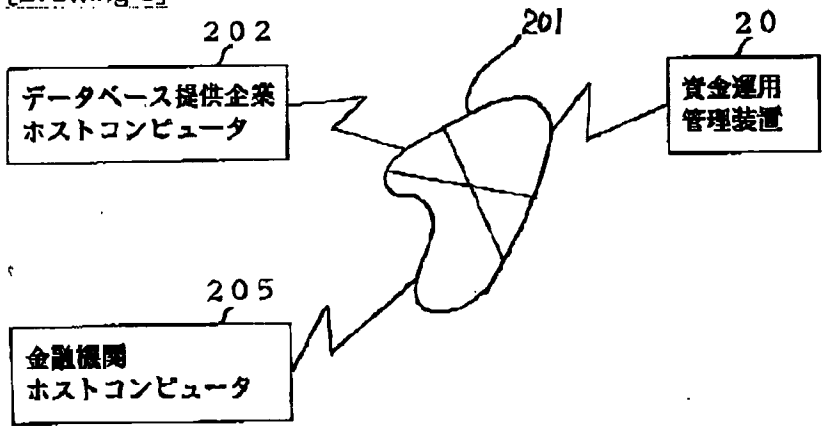
希望条件入力画面２ [最適化計算]

[Drawing 1]



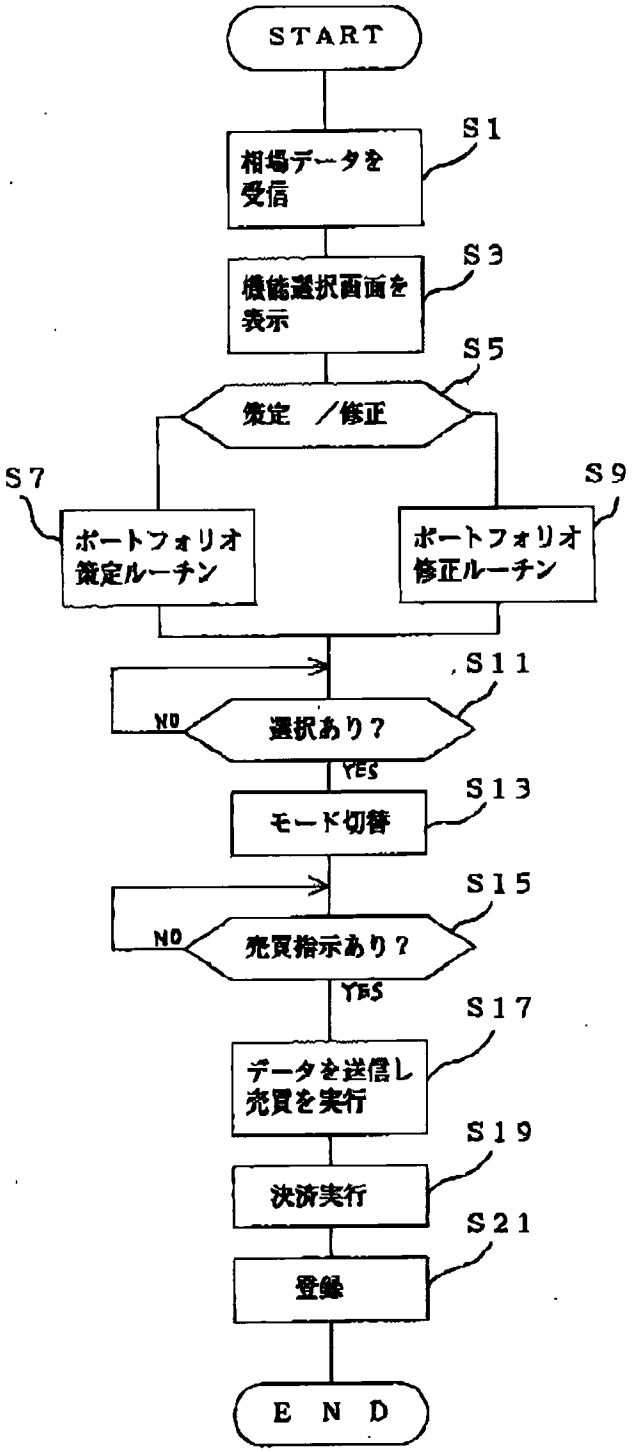
実施例のブロック図

[Drawing 3]



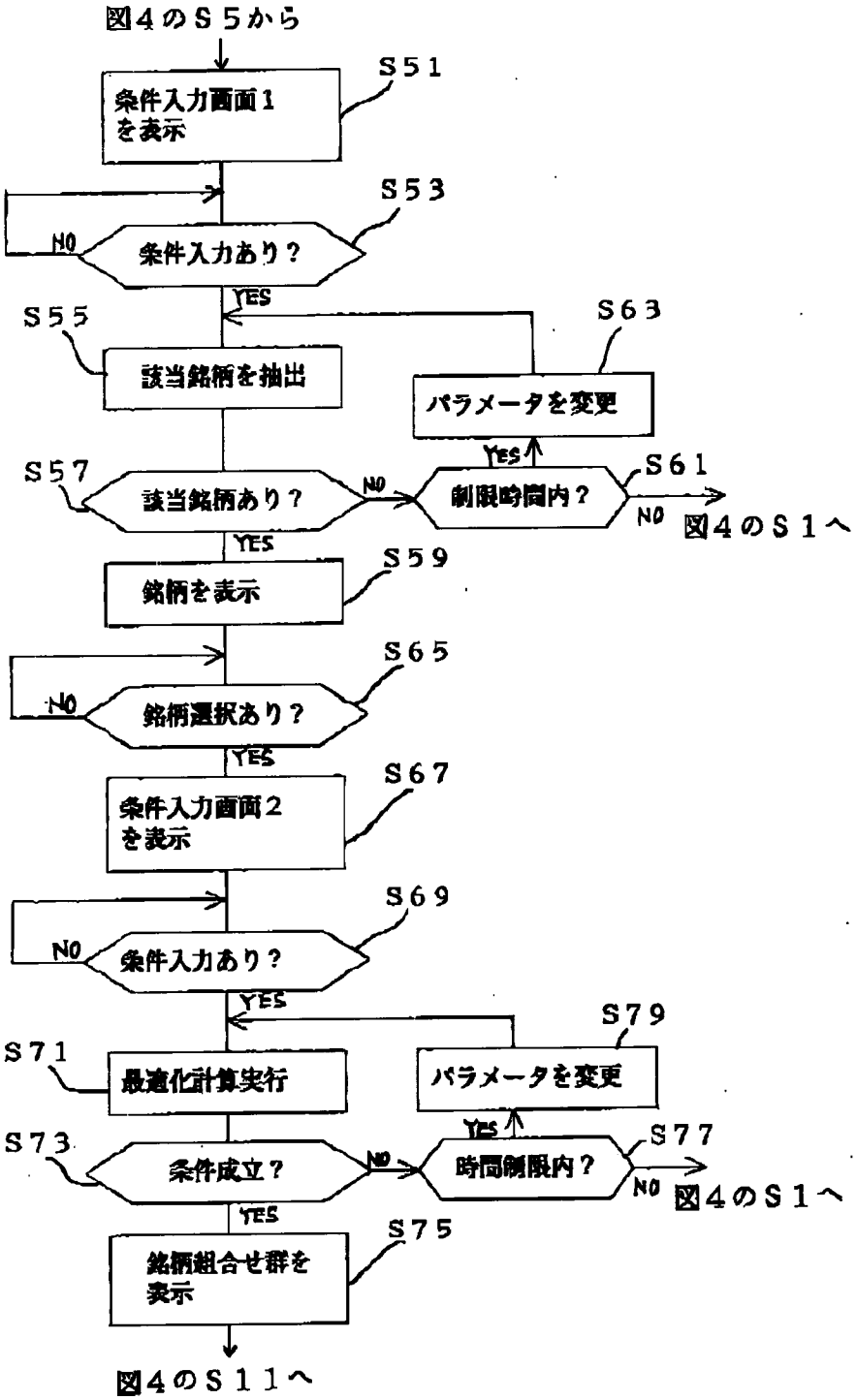
資金運用管理システムのネットワーク構成図

[Drawing 4]



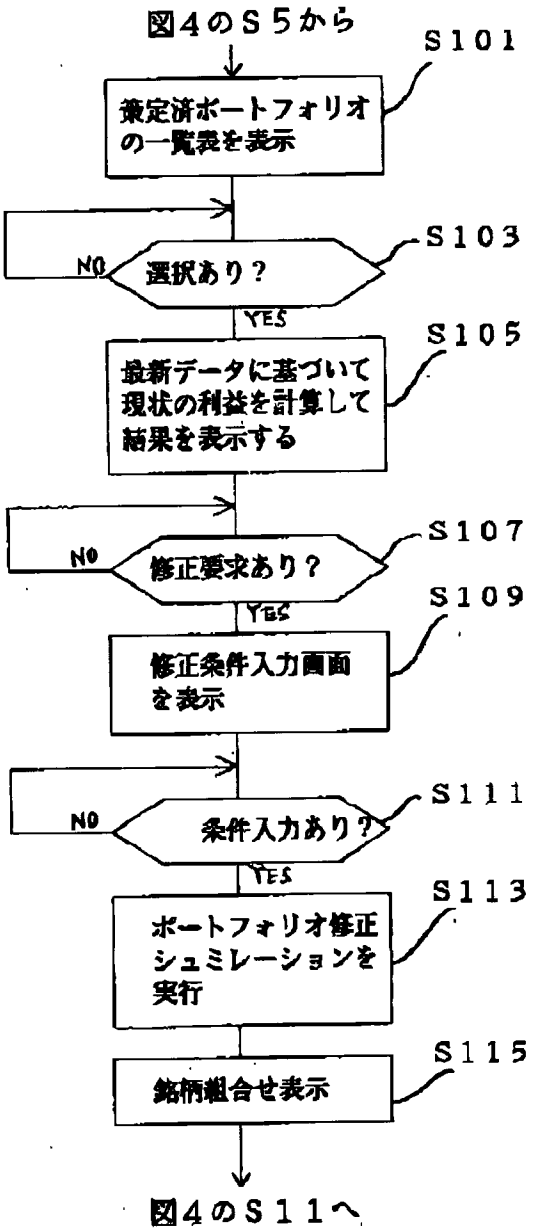
資金運用管理装置の処理フローチャート

[Drawing 5]



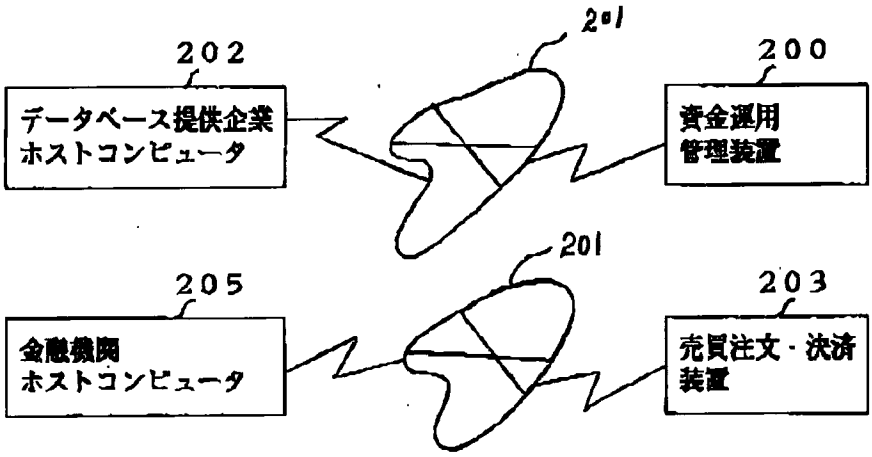
ポートフォリオ策定ルーチンのフローチャート

[Drawing 8]



ポートフォリオ修正ルーチンのフローチャート

[Drawing 9]



従来のネットワーク構成図

[Translation done.]